

# Two new species of the genus *Irepacma* from China (Lepidoptera: Oecophoridae)

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**Abstract:** Two new species of the genus *Irepacma* Moriuti, Saito *et* Lewvanich are described as new to science: *I. aedeagifera* sp. nov. from Sichuan Province and *I. hainanensis* sp. nov. from Hainan Province. The genital structures of the new species are illustrated.

**Key words:** Lepidoptera; Oecophoridae; *Irepacma*; new species; China

The genus *Irepacma* was established by Moriuti, Saito *et* Lewvanich in 1985<sup>[1]</sup>, which is closely allied to the genera *Periacma* Meyrick and *Repiacma* Moriuti, Saito *et* Lewvanich. Up to date, more than eight species have been known in the world<sup>[2–5]</sup> and three species have been recorded from China<sup>[6]</sup>. The present paper adds two new species to the genus, which were collected from Sichuan Province and Hainan Province. The type specimens are deposited in the Department of Biology, Nankai University (DBNU), Tianjin and Institute of Zoology, the Chinese Academy of Sciences (IZAS), Beijing respectively.

## 1 *Irepacma aedeagifera* Wang, Liu *et* Li, sp. nov. (Fig. 1)

**Male** Wing expanse: 20.0 ~ 23.0 mm. Head yellow. Labial palpus yellow, densely covered with brown scales except for distal end. Antenna yellow, scape brown on dorsal surface, flagellum annulated with brown. Thorax and tegula light brown, apically tinged with yellow. Forewing with costa gently arched, ground colour yellowish grey, with dense brown scales; brown spot set at end of cell, from which to before tornus being an irregular cestiform mark; apex pointedly protruding, with indistinct brown spot formed by scales; termen oblique; cilia yellowish, with brown marginal line at 1/2 and 3/4 respectively, the former a little dimmed. Hindwing greyish, cilia whitish grey, mixed with brown.

Legs pale yellow except for fore leg brown on inner surface, tibia and tarsus with brown spots, hind tibia covered with long hairs.

**Male genitalia** (Fig. 1) Uncus degenerate. Gnathos large, somewhat circular, marginally set with hairs. Valva wide, narrow basally, dilated distally, with dense hairs. Transtilla absent. Dorsoproximal process absent. Saccus long cestiform, irregularly curved upward in “S” form, distal acute, slightly hooked inward. Saccus large triangular in shape. Juxta weakly sclerotized, posterior margin deeply concaved, forming two triangular processes laterally; juxta lobe extremely developed, densely set with strong hairs, like hairbrush. Aedeagus slender, thin at base, expanded at distal, with fine spines in distal 1/4; a cestiform process at one side of distal 1/6, well exceeding end of aedeagus.

**Female** Unknown.

Holotype ♂, Mt. Qingcheng (30.9° N, 103.5° E), Sichuan Province, 1-VI-1979, genitalia slide no. W98371 DBNU; paratype 1 ♂, 5-VI-1979, same locality as holotype (IZAS).

The new species is similar to *I. pakiensis* Moriuti, Saito *et* Lewvanich, but can be distinguished from the latter by uncus degenerate, saccus long cestiform and juxta lobe of aedeagus with strong dense hairs in male genitalia.

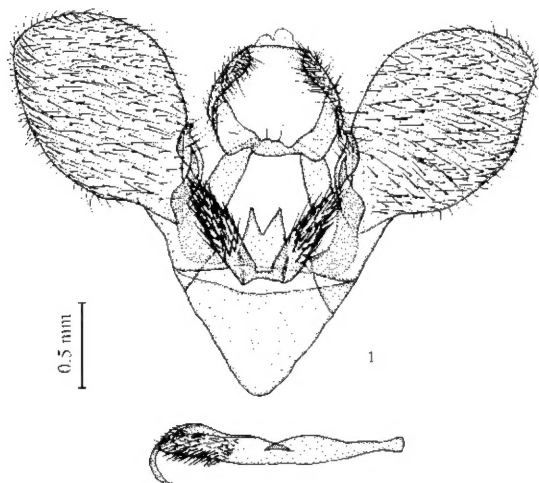


Fig. 1 Male genitalia of *Irepacma aedeagifera*

Wang, Liu *et al.*, sp. nov.

图1 茎刺伪带织蛾, 新种 *Irepacma aedeagifera*

Wang, Liu *et al.*, sp. nov. 雄性外生殖器

## 2 *Irepacma hainanensis* Wang, Liu *et al.*, sp. nov. (Figs. 2~3)

Wing expanse: male and female 18.0~22.5 mm. Head from yellowish white to yellowish brown. Labial palpus yellowish white, male with a brown mark near end, female third segment shorter than second, pointed. Antenna light yellow or yellowish white, scape with a longitudinal brown mark on dorsal surface, flagellum ringed with yellowish brown dorsally. Thorax and tegula dark brown, mixed with yellowish brown scales. Forewing with costa slightly arched, ground colour yellowish grey seen with naked eyes, densely suffused brown scales; obscure brown marks respectively set at middle of cell and 2/3 of fold, inwardly arched brown fascia from costal 2/3 to before tornus, a series of brown dots from apex along termen to before tornus, sometimes dim; apex roundly pointed; termen oblique; cilia pale yellow, tinged with brown. Hindwing and cilia greyish. Leg yellowish white, fore tibia and tarsus with scattered brown scales.

**Male genitalia** (Fig. 2) Uncus small, weakly sclerotized, concaved at middle of posterior margin. Gnathos somewhat circular, edged with long hairs. Valva narrow and long, narrower at basal 1/3, naked, distal 2/3 slightly wider, with dense hairs, apex bluntly rounded. Costa gently arched inward. Transtilla absent. Dorsal-proximal process well developed, asymmetrical;

right process much longer than left one, its dorsal margin with a cluster of spines distally; left process somewhat subtriangular, lacking spines. Saccus separated, dorsal distal process long and thin, distal half somewhat expanded, ventral process short and small, rounded at apex. Saccus broad, somewhat triangularly shaped. Aedeagus thin in basal 1/3, middle portion almost equally thick, distal obviously dilated, with small teeth.

**Female genitalia** (Fig. 3) Papillae anale large and broad, with short setae. Apophyses anterior absent. Ostium bursae developed. Ductus bursae short, slightly sclerotized. Corpus bursae elliptical, membranous, longer than ductus bursae. Signum irregularly shaped, medially with a distally spined and sclerotized carina.

Holotype ♂, genitalia slide no. W98366, paratype 1 ♀, Tianchi (30.9°N, 103.5°E), Hainan Province, 22-III-1980 (DBNU); paratype 1 ♂, 10-IV-1980, same locality as holotype (IZAS).

This new species is closely related to *I. pingensis* Moriuti, Saito *et al.* Lewvanich, but differs from the latter by dorso-proximal process asymmetrical, saccus with two processes distally in male genitalia and signum differently shaped in female genitalia.

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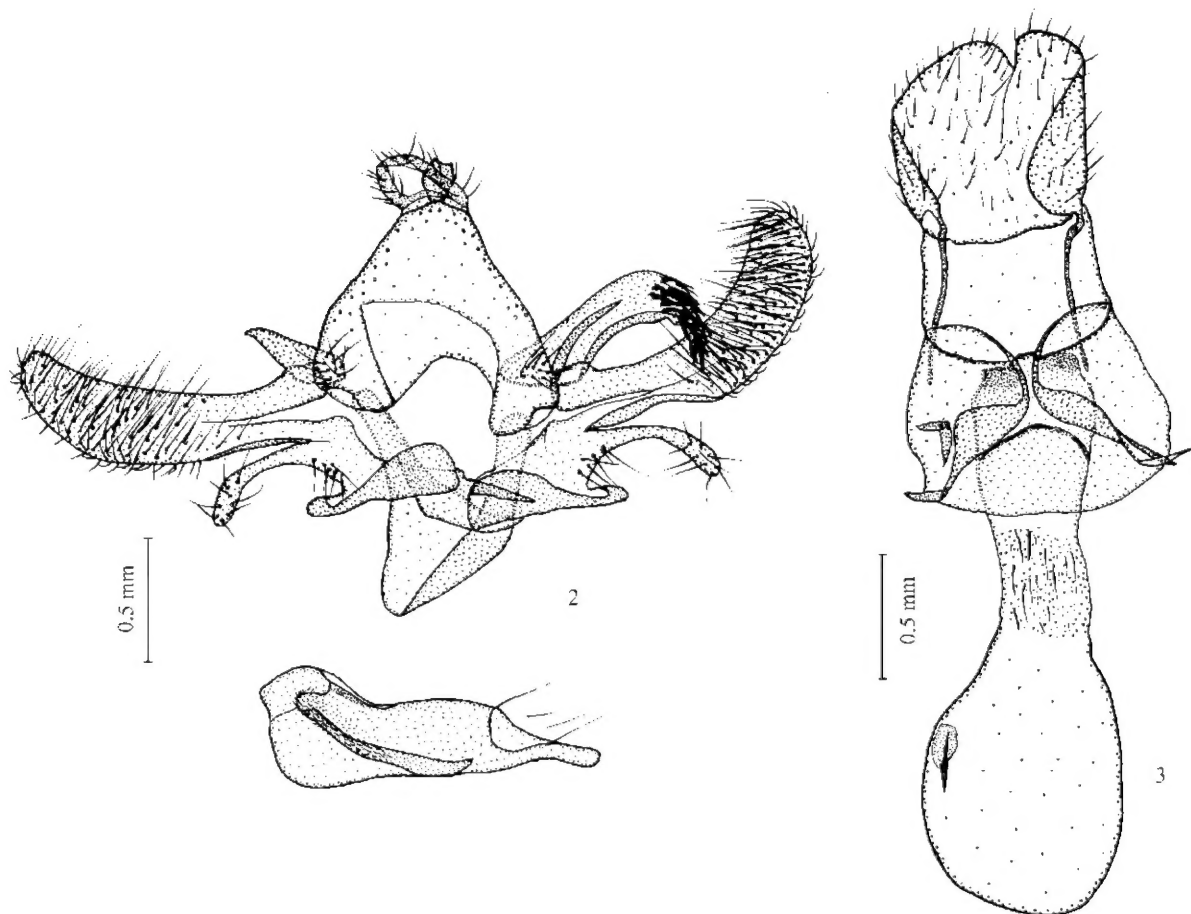


Fig. 2~3 *Irepacma hainanensis* Wang, Liu et Li, sp. nov.

图2~3 海南伪带织蛾, 新种 *Irepacma hainanensis* Wang, Liu et Li, sp. nov.

2. male genitalia (雄性外生殖器); 3. female genitalia (雌性外生殖器)

## 中国伪带织蛾属二新种记述 (鳞翅目: 织蛾科)

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**摘要:** 记述了织蛾科 Oecophoridae 伪带织蛾属 *Irepacma* 二新种。茎刺伪带织蛾 *I. aedeagifera* Wang, Liu et Li, sp. nov. 采自四川青城山, 与 *I. pakiensis* Moriuti, Saito et Lewvanich 相似, 但该种爪形突退化, 抱器腹呈带状, 阳茎端基环侧叶具稠密的刚毛。海南伪带织蛾 *I. hainanensis* Wang, Liu et Li, sp. nov. 采自海南省天池, 与 *I. pingensis* Moriuti, Saito et Lewvanich 近似, 但该种雄性抱器背基叶不对称, 抱器腹端部有二突起, 雌性囊突的形状不同于后者。文中提供了外生殖器特征图。模式标本分别保存在南开大学生物系和中国科学院动物研究所。

**关键词:** 鳞翅目; 织蛾科; 伪带织蛾属; 新种; 中国

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